

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1.-9. (cancelled).

10. (original) A method for enhancing mass transport between a surface and the bulk of a solution, in contact with said surface, **characterized** in that said solution is placed in a vessel suitable for centrifugation, and subjected to asymmetric heating, cooling and simultaneous centrifugation at conditions for creating an enhanced flow within said reaction mixture, wherein the asymmetric heating and cooling consists in the creation of a temperature difference between subsets of said reaction mixture and said flow ensures practically total mixing and homogenisation of the reaction mixture.

11. (original) The method according to claim 10, wherein the asymmetric heating and cooling consists of the walls of the reaction vessel being cooled, while a portion of the reaction mixture is heated.

12. (original) The method according to claim 10, wherein the central portion of the reaction mixture is heated while the walls of the reaction vessel are being cooled.

13. (original) The method according to claim 10, wherein the reaction mixture is subjected to a centrifugal force exceeding 500 x g.

14. (original) The method according to claim 10, wherein the reaction mixture is subjected to a centrifugal force in the interval of about 500 to about 20.000 x g.

15. (original) The method according to claim 10, wherein the reaction mixture is subjected to a centrifugal force in the interval of about 1.500 to about 20.000 x g.

16. (original) The method according to claim 10, wherein the reaction mixture is subjected to a centrifugal force in the interval of about 5.000 to about 15.000 x g.

17. (original) The method according to claim 10, wherein the heating of a subset of the reaction mixture is performed by a method of heating chosen among an IR-source, and a microwave element.

18. (original) The method according to claim 11, wherein the cooling of the walls of the reaction vessel is performed by convection cooling or the use of a circulating cooling medium.

19. A method for performing chemical synthesis, comprising the method of claim 1.

20. (original) A method for performing chemical synthesis, comprising the method of claim 10.

21. (previously presented) A method according to claim 19, wherein the chemical synthesis is solid phase chemical synthesis.

22. (canceled).

23. (original) A method of performing an assay, comprising the method of claim 10.

24.-26. (cancelled).

27. (original) A device for performing the method according to claim 10, wherein said device has means for holding a vessel suitable for centrifugation, and means for subjecting said vessel to asymmetric heating, cooling and simultaneous centrifugation at conditions for creating an enhanced mass transport between the bulk of reaction mixture and the surface of said vessel, wherein said flow ensures that the entire bulk of the reaction mixture repeatedly passes a defined location in the vessel.

28.-35. (cancelled).